

SOURCE: Glen Falls TV Data

NOVEMBER 1995 (NYC MARKET)

<u>NETWORK</u>	<u># OF PROGRAMS</u>	<u># CAPTIONED</u>	<u>% CAPTIONED</u>
DISNEY	866	722	83.37
HBO	543	403	74.22
MAX	419	227	54.18
SHOWTIME	519	171	32.95
TMC	424	171	40.33

ATTACHMENT C

- 2 -

SOURCE: Glen Falls TV Data

NOVEMBER 1995 (NYC MARKET)

<u>NETWORK</u>	<u># OF PROGRAMS</u>	<u># CAPTIONED</u>	<u>% CAPTIONED</u>
A&E	605	59	9.75%
AMC	424	34	8.02
BET	900	43	4.78
BRAVO	734	7	0.95
CNBC	955	21	2.20
CNN	986	722	73.23
COURT	661	0	0
CSPAN	351	83	23.65
CSPAN2	270	1	0.37
DSC	1162	12	1.03
E!	1138	0	0
ESPN	716	48	6.70
ESPN2	901	0	0
FAM	934	202	21.63
LEARN	1230	113	9.19
LIFE	959	169	17.62
MTV	827	0	0
NICK	1391	229	16.46
QVC	566	0	0
SCIFI	983	108	10.99
TNT	585	105	17.95
TOON	1327	62	4.67

ATTACHMENT C

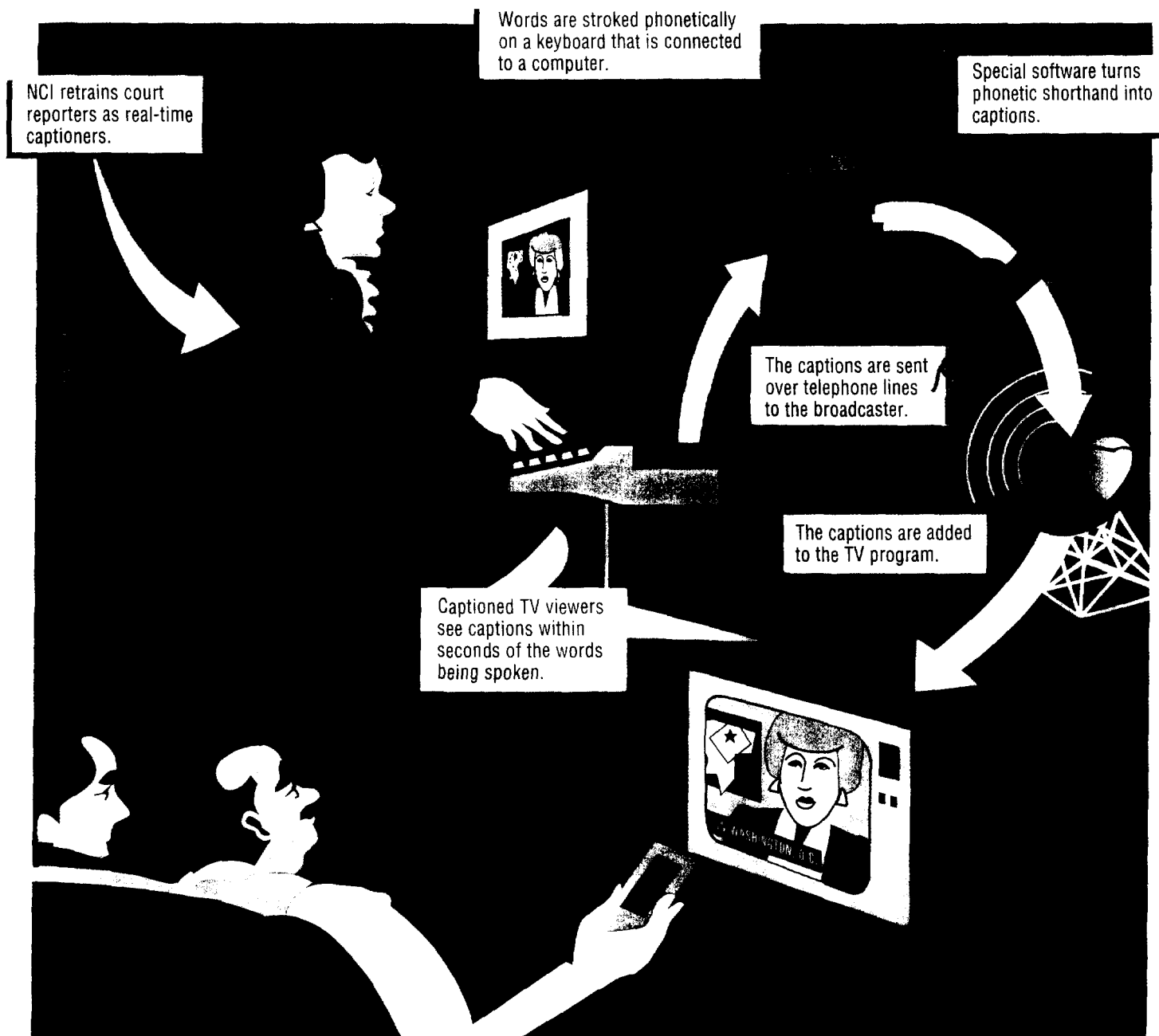
- 3 -

USA	888	495	55.74
VH1	787	0	0
TBS	813	197	24.23

NCI

Information from the National Captioning Institute

An Illustrated View of Real-Time Captioning



National Captioning Institute, Inc. ©1993

NCI

Words Worth Watching. SM

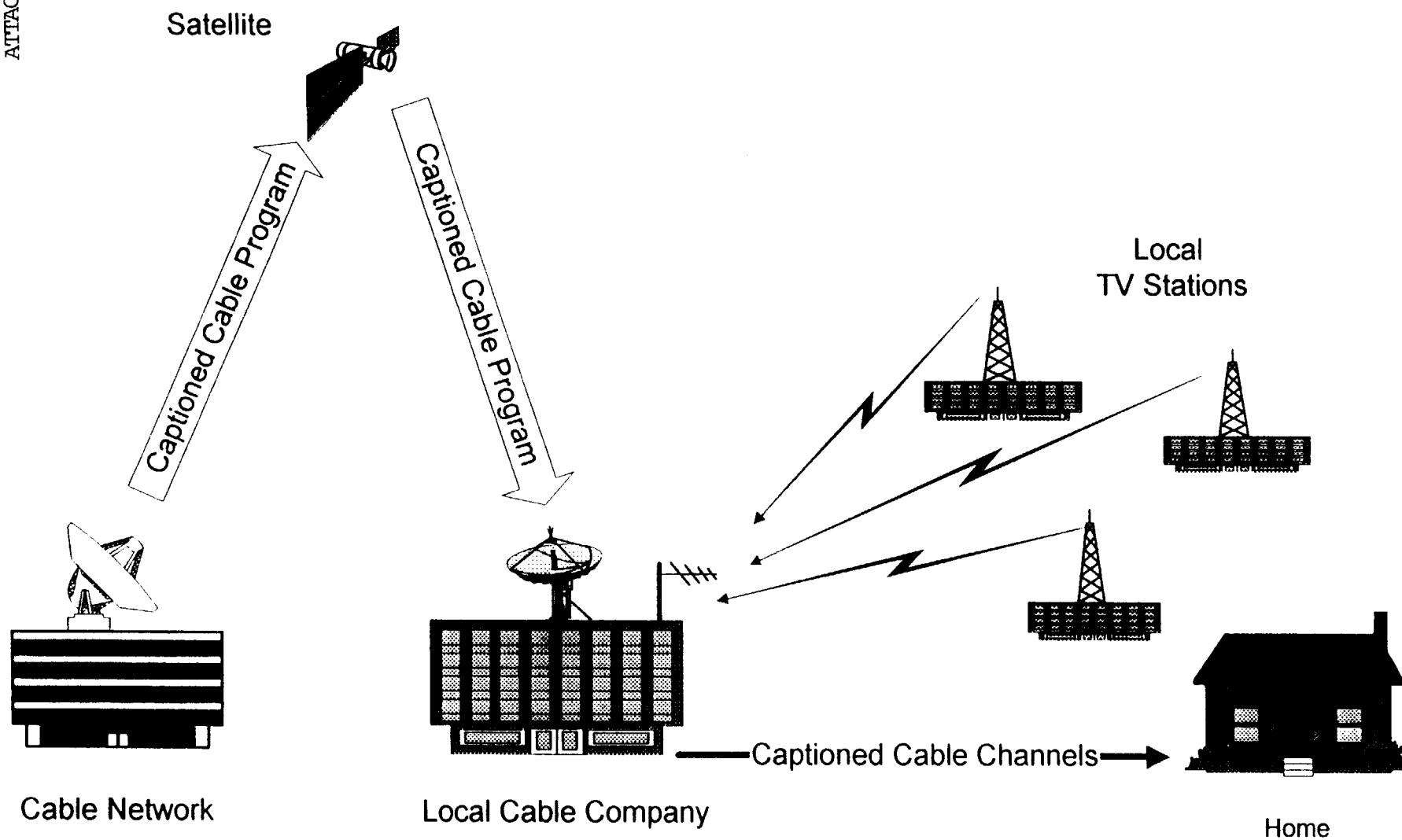
Internet: mail@ncicap.org

1900 Gallows Road, Suite 3000 Vienna, VA 22182 703-917-7600 V/TTY 703-917-9853 FAX

545 Fifth Avenue, Suite 1101 New York, NY 10017 212-557-7011 V/TTY 212-557-6975 FAX

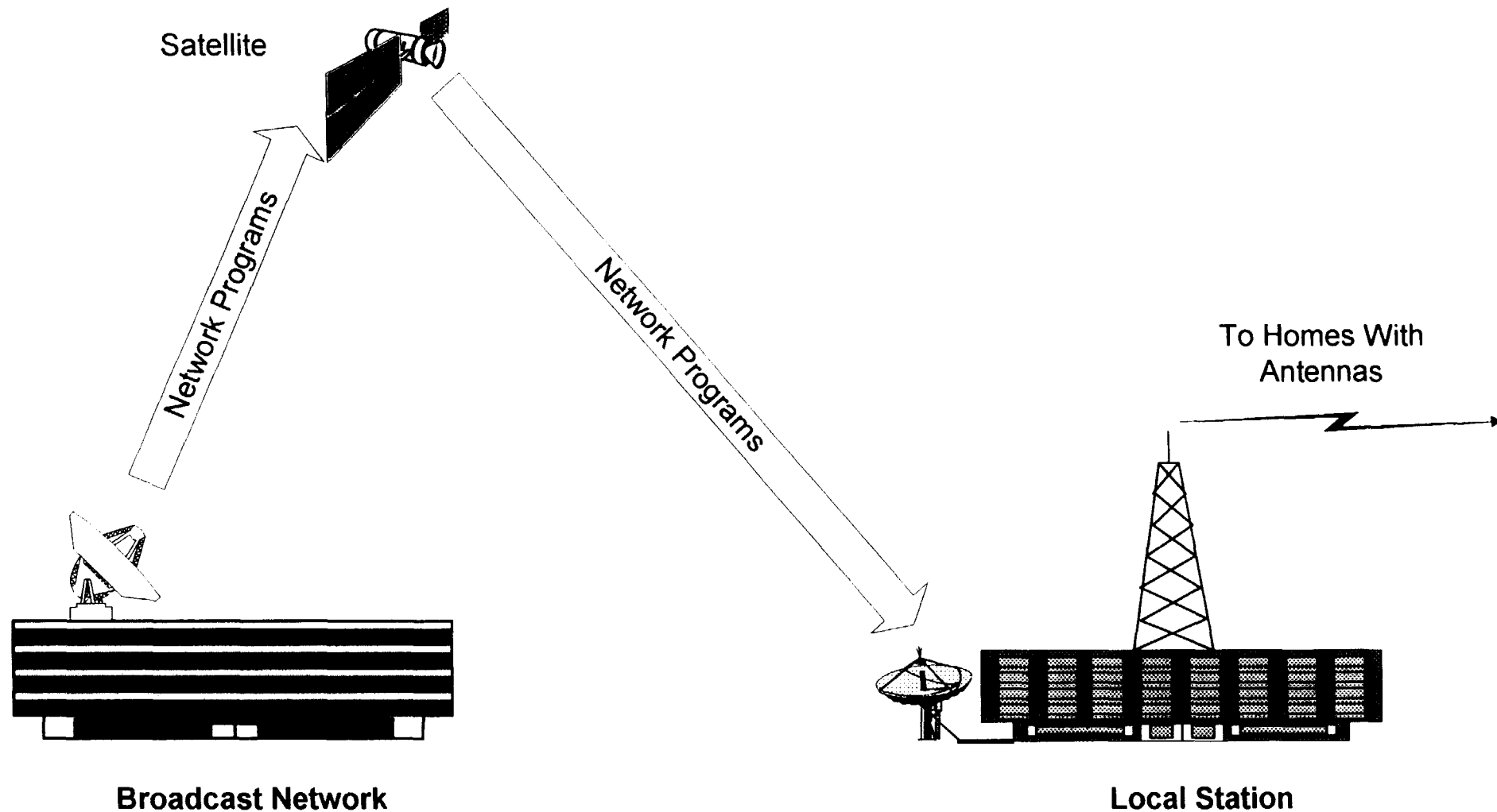
303 North Glen Oaks Boulevard, Suite 200 Burbank, CA 91502 818-238-0068 V/TTY 818-238-4266 FAX

CAPTION TRANSMISSION TO HOMES WITH CABLE



CAPTION TRANSMISSION TO LOCAL STATIONS

ATTACHMENT E



11th International Convention of Telecommunications for the Deaf, Inc. June 28, 1995
Ellie Korres - Technology Assessment Program, Gallaudet University
Ves Bennett - HBO Captioning



PRESERVING LINE 21 WHILE SQUEEZING THE PICTURE

THE PROBLEM

In order to squeeze a television picture, the picture must undergo a conversion from analog video to digital video where the manipulation of the picture takes place. After the picture has been manipulated in the digital domain, it must be re-converted to analog. All of this is handled by a piece of equipment called a DVE (Digital Video Effects). The process of taking the video signal apart and putting it back together again results in the loss of all information in the vertical interval.

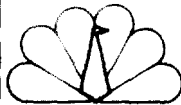
Line 21, the television line that carries closed captioning data, is in the vertical interval and, therefore, is lost in this process. When the manipulation being performed is a squeeze, even if the line 21 data were retained, it would no longer be able to be recovered by the TV set's closed captioning decoder because it would be smaller and located near the middle of the TV picture instead of at the top where the "real" line 21 should be.

THE SOLUTION

The output of the DVE has no line 21 data but it has the original program video squeezed into a small box that is then keyed over a background graphic. The "emergency crawl" is downstream keyed over this combination. Everything is there except the line 21 data. We recover the line 21 data by taking the source video-- the input video of the DVE-- and using it as a background. The mix-effects bus that has the DVE output keyed over the graphic becomes the foreground video and is keyed over the original source tape. This key is done as a horizontal wipe with the transition to the foreground happening at line 22. This technique preserves the line 21 data from the original source--now the background of our composite image.

(See attached diagram.)

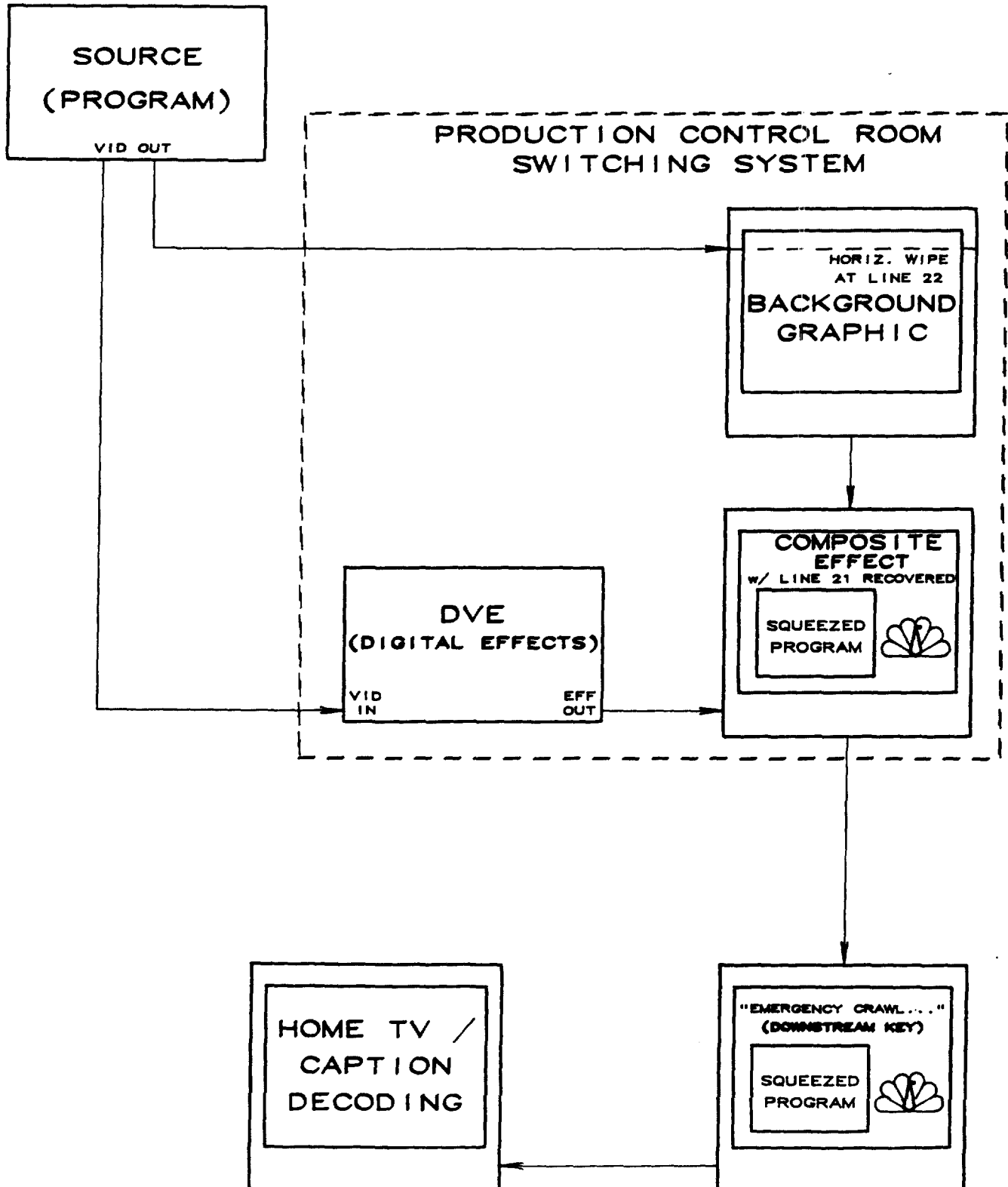
Drawn DOROUGH
Date 3 MAR 1994
Engineer UPDIKE
Approved _____



NATIONAL BROADCASTING CO.
ENGINEERING FACILITIES GROUP

Drawing No. _____

THE TOBI SYSTEM (LINE 21 RECOVERY)



CAPTIONING VENDORS: Services Offered

ATTACHMENT 3

Company Name	Off-Line	Real-Time o/c b/l		Year Service Started	Sells Hardware and/or Software
Allied Film & Video	a/c	a/c	b/l	1993	
AmeriCaption, Inc.		o	l	1990	
Balkman, Richardson, & Seward		a/c	b/l	1992, 1988*	
Bay Area Captioning		a/c	b/l	1992	
Buyers & Kaczor Reporting Services, Inc.		c		1989	
The Caption Center	a/c	a/c	b	1972, 1986*	s
Caption Colorado		c	b/l	1991	
The Caption Company	a/c	a/c	b/l	1993, 1988*	
The Caption Connection	a/c			1992	
Caption Graphics	a/c			1992	
Caption Max	a/c			1993	
Caption Perfect	a/c	a/c	b	1992	
Caption Reports, Inc.	a/c	a/c	b/l	1993	
Captioned Communication	a/c	a/c	b/l	1992	
Captioning Resources of Western New York	a/c	a/c	b/l	1988	
Captions, Inc.	a/c			1986	
Captions Unlimited	o			1989	
Cardinal Captioning Center	a/c	a/c	b/l	1993	
Center on Deafness	a/c			1988	
Classic Video, Inc.	a/c			1988	
Closed Caption Productions, Inc.	a/c	a/c	b/l	1990, 1988*	
Closed Captioning Services, Inc.	a/c	a/c	b/l	1989	h/s
Columbia Captions	a/c	a/c	b/l	1993	
Communication Works of the Deaf	a/c	a/c	b/l	1993, 1994*	
Computer Prompting & Captioning Co.	a/c			1990	h/s
CTV Captioning	a/c	a/c	b/l	1994	
Eaton & MacDonald Associates, Inc.		o	l	1990	
Fast Forward	a/c			1991	
Florida Captioning Services	a/c	a/c	b	1992, 1990*	
Gallaudet University	a/c	a/c	l	1984	
Heminger Digital Captioning	a/c	a/c	b/l	1992, 1994*	

Note: CaptionAmerica is now VTAC; Northwest Teleproductions is now Midwest Teleproductions

Prepared by: Gallaudet University Technology Assessment Program
National Information Center on Deafness

CAPTIONING VENDORS: Services Offered (continued)

Company Name	Off-Line	Real-Time		Year Service Started	Sells Hardware and/or Software
Hughes Captioning Services Real-Time Capt.		o/c	b/l	1990	
Hyatt Court Reporting & Video	o/c	o/c	b/l	1989, 1990*	
InTouch Services, Inc.		c	l	DNP	
KCET-TV	o/c	o/c	b	1989	
Maverick Captioning	o/c	o/c	b/l	1991, 1994*	
Media Captioning Service		o/c	b/l		
Midwest Teleproductions	o/c			1992, 1985	
Modern Video Productions	o/c			1992	
National Captioning Institute, Inc.	o/c	o/c	b/l	1980, 1982*	s
Northwest Teleproductions (see Midwest)					
Olara Captioning Company	o/c			1994	
Pilgrim Imaging	o/c			1985	
Producers Clear Service, Inc.	o/c			1989	
Professional Reporters, Inc.	o/c	o/c	b/l	1989	
Real-Time Captioning, Inc.	o/c	o/c	b/l	1982	h/s
Silent Network Captioning	o/c			1984, 1993	
Silent Word Media Resources	o/c	o/c	b/l	1986, 1992*	
Softech Systems, Inc.	c	c	b	1988, 1992*	h/s
Southwest Captioning	o/c	o/c	b/l	1991	
Southwest Reporters, Inc.		c	l	1988	
Teknova Multilingual Captions, Inc.	o/c			1993	
Texas Closed Captioning Reporters	o/c	o/c	b/l	1990	
VITAC	o/c	o/c	b/l	1986	

o = Open Captioning
c = Closed Captioning

b = Broadcast
l = Live

h = Hardware
s = Software

DNP = Did not provide year captioning service started
* = Off-Line and Real-Time respectively

Vendors Offering Hardware/Software Only

Advantage Software
Cheetah Systems, Inc.
Computer Engineering Associates, Inc.
Data Center Management, Inc.
EEG Enterprises, Inc.
Image Logic
Pacific Lotus Technology (Telecriber System)

Silent Software
Soft Touch, Inc.
StenoCAT
Stoneware, Inc.
Visual Aids Electronics
Xscribe Corporation

CAPTIONING VENDORS: Contact Information

Advantage Software
944 Central Parkway
Stuart, FL 34994
800-800-1759 voice
407-288-1737 fax

Allied Film & Video
1322 West Belmont Avenue
Chicago, IL 60657
312-348-0373 voice
312-348-5669 fax

AmeriCaption, Inc.
5714 Monte Rosso Road
Sarasota, FL 34243
813-359-8100 voice
813-351-8188 fax

**Ballman, Richardson &
Seward**
Court Reporting & Captioning
Service
2332 IDS Center
Minneapolis, MN 55402
612-339-0545 voice
612-591-7692 fax

Bay Area Captioning
P.O. Box 2761
San Ramon, CA 94583
415-561-0529 voice
510-735-0320 tty
510-735-0541 fax

Buyers & Kaczor
Reporting Services, Inc.
1400 Rand Building
Buffalo, NY 14203
716-852-2223 voice
716-852-8271 fax

CaptionAmerica
(see VITAC)

The Caption Center
125 Western Avenue
Boston, MA 02134
617-492-9225 voice/tty
617-562-0590 fax

610 North Hollywood Way
Suite 350
Burbank, CA 91505
818-562-3344 voice
818-562-1919 tty
818-562-3388 fax

475 Park Avenue South
10th Floor
New York, NY 10016
212-545-0854 voice
212-545-8546 tty
212-545-7156 fax

Caption Colorado, Inc.
2135 South Cherry Street
Suite 111
Denver, CO 80222
303-691-0122 voice
303-691-2317 fax

The Caption Company
1700 Water Place
Suite 300
Atlanta, GA 30339
404-952-4019 voice
404-952-8399 voice
404-933-9355 fax

The Caption Connection
1320 Edgewater NW
Suite B10
Salem, OR 97304
800-825-6388 voice/tty
503-585-8174 voice/tty
503-370-6457 fax

Caption Graphics
3014 Brinkley Road, #101
Temple Hills, MD 20748
301-630-4906 voice/tty
800-500-4906 voice
301-630-4906 fax

Caption Max
708 N. First Street
Suite 131
Minneapolis, MN 55401
612-341-3566 voice/tty
612-341-0242 fax

Caption Perfect
P. O. Box 12454
Research Triangle Park, NC
27709
919-942-0693 voice
919-942-0436 tty
919-942-0435 fax

Caption Reporters, Inc.
717 D Street, N.W.
Suite 210
Washington, DC 20004
202-737-5800 voice
202-737-1132 tty
202-737-1141 fax
800-886-1243 voice/tty

1421-172nd Place, S.W.
Lynnwood, WA 98038
206-742-6776 voice/tty
800-886-1243 voice/tty

Captioned Communication
445 George Street
New Haven, CT 06511
203-785-8795 voice/tty
203-785-9132 fax

**Captioning Resources of
Western New York, Inc.**
P.O. Box 708
Honeoye, NY 14471
716-367-3190 voice/tty
716-367-3194 fax

Captions, Inc.
2619 Hyperion Avenue
Los Angeles, CA 90027
213-665-4860 voice/tty
213-665-6869 fax

3900 W. 12th Street, #3B
Sioux Falls, SD 57107
605-330-9224 voice/tty
605-330-9226 fax
800-568-4341 voice/tty

Captions Unlimited
Ginny Fisher
2424 Magog Road
Palmyra, NY 14522
315-597-6097 voice/tty

Cardinal Captioning Center
53 Orange Street
Asheville, NC 28801
704-252-4738 voice/tty
704-253-3897 fax

Center on Deafness
1900 Grant Street
Suite 1010
Denver, CO 80203
303-839-8022 voice/tty
303-839-8027 fax

Cheetah Systems, Inc.
109 Fourier Avenue
Fremont, CA 94539
510-656-0700 voice/tty
800-829-2287 voice
510-656-0527 fax

Classic Video, Inc.
5001 East Royalton Road
Cleveland, OH 44147
216-838-5377 voice
216-838-1240 fax

**Closed Caption
Productions, Inc.**
3636 North Central Avenue
Suite 960
Phoenix, AZ 85012
602-241-6645 voice
602-240-2322 fax

**Closed Captioning
Services, Inc.**
541 North Fairbanks Court
Suite 2026
Chicago, IL 60611-9900
313-345-9900 voice
313-245-9901 fax

2215 Oak Industrial
Drive, NE
Grand Rapids, MI 49505
616-456-6794 voice/tty
616-458-6855 fax

Columbia Captions
610 Pennsylvania Ave, NW
Suite 900
Washington, DC 20004
202-434-8288 voice
202-639-8238 tty

**Communication Works of the
Deaf**
37610 Hills Tech Drive
Building #4
Farmington Hills, MI 48331
810-488-0131 voice
810-488-0130 tty
810-488-2094 fax

**Computer Engineering
Associates, Inc.**
3922 Vero Road
Baltimore, MD 21227
410-247-5244 voice
410-247-5407 fax

**Computer Prompting &
Captioning Co.**
3408 Wisconsin Avenue, NW
Washington, DC 20016
202-966-0980 voice
202-966-0886 tty
202-966-0981 fax
800-977-6678 voice/tty

CTV Captioning
44 Montgomery, Fifth Floor
San Francisco, CA 94104
415-955-0571 voice
415-397-6309 fax
800-646-5509 voice

**Data Center Management,
Inc.**
1017 Kenilworth Avenue
Charlotte, NC 28204
704-377-1496 voice
704-377-6336 fax

**Eaton & MacDonald
Associates, Inc.**
15 Court Square
Suite 240
Boston, MA 02108
617-227-6001 voice/tty
617-227-6003 fax

EEG Enterprises, Inc.
1 Rome Street
Farmingdale, NY 11735
516-293-7472 voice/tty
516-293-7417 fax

Fast Forward
1025 Sansome Street
San Francisco, CA 94111
415-989-6245 voice
415-989-0349 fax

Florida Captioning Services
Peggy M. Belflower
P.O. Box 150898
Altamonte Springs, FL 32715
407-331-7950 voice
407-645-3439 tty
407-831-5570 msg/fax

Gallaudet University
Department of T.V., Film,
& Photography
800 Florida Avenue, NE
Washington, DC 20002
202-651-5115 voice/tty
202-651-5124 fax

Henninger Digital Captioning
2601-A Wilson Boulevard
Arlington, VA 22201
703-243-3444 voice
703-243-5697 fax

Hughes Captioning Services
Real-Time Captioning
P. O. Box 50025
Nashville, TN 37205
615-356-6055 voice/tty

**Hyatt Court Reporting
& Video**
1719 Emerson Street
Denver, CO 80218
303-830-0208 voice/tty
303-830-0212 fax

Image Logic
6807 Brennon Lane
Chevy Chase, MD 20815
202-452-6077 voice
301-652-6584 fax

In Touch Services, Inc.
4853 Powderhorn Lane
Westerville, OH 43081
614-891-1626 voice/tty
614-539-9721 voice/tty
614-891-8585 fax

KCET-TV
Captioning Center
4401 Sunset Boulevard
Hollywood, CA 90027
213-666-6500 voice
213-953-5543 voice/tty
213-665-6067 fax

Maverick Captioning
2312 Park Avenue
Cincinnati, OH 45206
800-457-5885 voice/tty
513-221-3397 fax

Media Captioning Services
2141 Palomar Airport Road
Suite 310
Carlsbad, CA 92009
619-431-2882 voice
619-431-8795 tty
619-431-2918 fax

Midwest Teleproductions
(formerly Northwest Teleproductions)
3947 State Line
Kansas City, MO 64111
816-531-3838 voice
816-561-3671 fax

Modern Video Productions
1650 Market Street
Third Floor
Philadelphia, PA 19103
215-569-4100 voice
215-569-1685 fax

National Captioning Institute,
1900 Gallows Road
Suite 3000
Vienna, VA 22182
703-917-7600 voice/tty
800-533-9673 voice
800-321-8337 tty

1443 Beachwood Drive
Hollywood, CA 90028
213-469-7000 voice/tty
213-957-5255 fax

545 Fifth Avenue
Suite 1403
New York, NY 10017
212-557-7011 voice/tty
212-557-6975 fax

Olexa Captioning Company
3504 Wilton Hall Court
Alexandria, VA 22310
703-960-4321 voice & fax

Pacific Lotus Technology
411-108th Avenue, NE
Suite 325
Seattle, WA 98004
206-454-7374 voice
800-243-2710 voice
206-454-7323 fax

Pilgrim Imaging
1005 Butterworth Court
Stevensville, MD 21666
800-874-5474 voice
410-643-8602 fax

Producers Color Service, Inc.
24242 Northwestern Highway
Southfield, MI 48075
810-352-5353 voice
810-358-3851 fax
800-727-8700 voice

Professional Reporters, Inc.
172 East State Street
Suite 203
Columbus, OH 43215
614-464-0675 voice/tty
614-464-2144 fax
800-229-0675 voice/tty

Real-Time Captioning, Inc.
16031 Sherman Way
Van Nuys, CA 91406
818-376-0406 v/tty
818-376-0416 fax

Silent Network Captioning
Divis. of Kaleidoscope Televisio
1777 NE Loop 410, Suite 300
San Antonio, TX 78217
512-824-7446 voice
512-824-1666 tty
210-829-1388 fax

Silent Software
1025 Sansome Street
San Francisco, CA 94111
415-989-6245 voice
415-989-0349 fax

Silent Word Media Resources
7400 West Augusta Boulevard
24-S
River Forest, IL 60305
708-209-3341 v/tty

Softech Systems, Inc.
14311 Old Columbia Pike
Burtonsville, MD 20866
301-989-2253 voice
800-527-6397 voice
301-989-8413 fax

Soft Touch, Inc.
400 N. Columbus Street
Suite 205
Alexandria, VA 22314
703-549-8445 voice
703-836-8583 fax

Southwest Captioning
5000 Quorum Drive
Suite 377
Dallas, TX 75240-7035
214-991-5603 voice
214-991-5657 fax

Southwest Reporters, Inc.
P.O. Box 172
Marshall, MN 56258
800-873-3376 voice

StenoCAT
2382 Morse Avenue
Irvine, CA 92714
714-261-1777 voice
714-261-5147 fax

Stoneware, Inc.
First Interstate Bank
Suite 200
12339 Jones Road
Houston, TX 77071
800-328-8220 voice
713-890-8880 voice

**Teknova Multilingual
Captions, Inc.**
4171 North Mesa
Building B, Suite 250
El Paso, TX 79902
915-544-6350 voice
915-543-3213 fax

**Texas Closed Captioning
Reporters**
611 West 14th Street
Suite 200
Austin, TX 78701
512-480-0210 voice
512-480-0225 fax

Visual Aids Electronics
12073 Tech Road
Silver Spring, MD 20804
301-680-8400 voice
301-680-9245 fax

**VITAC (formerly Caption
America)**
312 Boulevard of the Allies
Pittsburgh, PA 15222
412-261-1458 voice
412-232-6344 tty
412-261-6257 fax
800-27-VITAC voice/tty

4411 W. Olive Avenue
Burbank, CA 91505

733 15th Street, NW
Suite 420
Washington, DC 20005-2112

Xscribe Corporation
6285 Nancy Ridge Drive
San Diego, CA 92121
800-888-5091 voice
619-457-5091 voice
619-457-3928 fax

ATTACHMENT H

Fiscal Year 1995

Educational Media Research, Production, Distribution, and Training Program

IDEA, Part F, CFDA 84.026

FY 1995 Appropriation: \$19,142,000

Program Purpose

The Educational Media Research, Production, Distribution, and Training Program has three major objectives. The first is to promote the general welfare of deaf and hard-of-hearing individuals by bringing to those individuals an understanding and appreciation of films, videos, and television programs that play an important part in the general and cultural advancement of hearing individuals, providing through these films and television programs enriched educational and cultural experiences through which deaf and hard-of-hearing individuals can be brought into better touch with the realities of their environment, and provide a wholesome and rewarding experience that deaf and hard-of-hearing individuals may share together. The second objective is to promote the educational advancement of individuals with disabilities by carrying on research in the use of educational media for individuals with disabilities, producing and distributing educational media for the instruction of individuals with disabilities, their parents, their actual or potential employers, and other individuals directly involved in work for the advancement of individuals with disabilities, training individuals in the use of educational media for instruction of individuals with disabilities, and utilizing educational media to help eliminate illiteracy among individuals with disabilities. Finally, this program aims to promote the general welfare of visually impaired individuals by bringing to individuals an understanding and appreciation of textbooks, films, television programs, video materials, and other educational publications and materials that play an important part in the general and cultural advancement of visually unimpaired individuals, and ensuring access to television programming and other video material.

Program Activities Supported in Fiscal Year 1995

- ✓ 1. **Closed-Captioned National News and Public Information Programming** (84.026P; \$2,591,000; 3 continuation cooperative agreements). This priority supports the continuation and expansion of closed-captioned national news, public information programs, and emergency programming, so that persons with hearing impairments can have access to up-to-date national morning, evening, and weekend news, as well as information concerning current events and other significant public information. The project at *WGBH Educational Foundation, Caption Center, Boston, MA* is providing closed-captioning of national newscasts on NBC, CBS, PBS, and C-SPAN for deaf and hard of hearing television viewers nationwide. The project at the *National Captioning Institute, Inc., Falls Church, VA* is providing captioned coverage of nationally televised news and public affairs programming on ABC. The project located at *VITAC (American Data Captioning, Inc.), Pittsburgh, PA* is captioning continuous news programming on the CNN Headline News cable channel. News programs are being captioned for broadcast during popular viewing hours. The programming is providing non-stop availability to caption viewers of national, international, business, weather, sports and lifestyle news, plus prime-time coverage during national emergencies.
- ✓ 2. **Closed-Captioned Children's Programs** (84.026V; \$964,000; 2 continuation cooperative agreements). These projects support closed-captioning of children's programs shown on national commercial and public television broadcast networks, as well as syndicated and cable programs shown nationally, in order for children who are deaf and hard of hearing to have access to popular children's programs. These projects take into account the preferences of consumers for particular programs, the diversity of national children's programming, and the extent to which currently captioned children's programs continue to be captioned. The purpose of the project, located at *WGBH Educational Foundation*,

Program - Funded Activities

Boston, MA. is to continue and expand upon current closed-captioned children's programming for selected PBS programming, FOX programming national cable programming, as well as *Es Incredible Cartoon Network* which is dubbed into Spanish for use in the classroom. The programming includes many new programs not previously available in a captioned format. The benefits of captioned children's programming are being promoted to traditionally deaf and hard-of-hearing audiences as well as to groups representing children learning to read and children learning English. The purpose of the project located at the *National Captioning Institute, Inc., Falls Church, VA*, is also to continue and expand closed-captioned children's television programming. Funding of this project is to carry out the captioning of certain PBS programs, including *Sesame Street*, children's programs on ABC, NBC, CBS and to caption children's syndicated and cable programs.

✓ 3. **Closed-Captioned Sports Programs** (84.026A; \$1,004,000; 3 continuation cooperative agreements). This priority supports the closed-captioning of major sports programs broadcast nationally in order that persons who are deaf or hard of hearing will have access to sports commentaries and other audio information during televised events. The three funded projects, *The National Captioning Institute, Fairfax, VA*, *Media Captioning Services, Carlsbad CA*, and *Real Time Captioning, Inc., Van Nuys, CA* are providing closed-captioning of televised playoff and championship games and continue to provide access to sporting events on all three broadcast networks (ABC, CBS, NBC), major basic cable sports services (ESPN and TNT), as well as providing expanded access to sports programming on pay cable services.

✓ **Closed Captioned Movies, Mini-Series, and Special Programs Broadcast During Prime Time** (84.026F; \$1,007,000; 2 continuation cooperative agreements). This priority supports projects to continue and expand closed-captioned movies, mini-series, and special programs broadcast during prime time. The purpose of the *WGBH Educational Foundation, Boston, MA* project is to maintain the current level of captioned movies, mini-series and specials on CBS and NBC, while adding prime-time hours on FOX, LIFETIME, USA, Arts and Entertainment, Discovery and TBS, selected with the input of consumers with hearing impairments. This project is educating all involved partners to the need to request and use existing caption files previously created for earlier broadcasts. The *National Captioning Institute, Inc., Falls Church, VA* project provides accessibility to prime time movies, mini-series and specials for ABC and selected cable programming.

✓ 5. **Closed-Captioned Syndicated Television Programming** (84.026J; \$958,000; 2 continuation cooperative agreements). These projects support closed-captioning syndicated television programs, thereby making a variety of programs available at different times, depending on the broadcast or cable station, for hearing impaired individuals. Syndicated programming includes both previously broadcast programs or series, as well as new programs distributed for showing on individual stations. The activities of the grantees are in response to the preferences of consumers for particular programs, the diversity of national syndicated programming, and the extent to which programs continue to be captioned. The project located at *WGBH Educational Foundation, Boston, MA* is captioning programs for two major sources of the syndicated television marketplace: classic evergreen programs (such as *The Brady Bunch*) and first run syndicated programs selected on the basis of popularity, availability, and feedback from persons who are deaf or hard of hearing. The project located at the *National Captioning Institute, Inc., Falls Church, VA* is continuing and expanding the captioning of certain syndicated television programs based upon forged partnerships with syndicators and program producers to supplement federal funds available for syndicated television programming.

✓ 6. **Closed-Captioned Daytime Television Programs** (84.026S; \$1,350,000; 4 new cooperative agreements). This priority supports closed-captioning of daytime programming broadcast nationally, so

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that persons who are deaf or hard of hearing can have access to daytime television programming that contributes to the general, educational, and cultural experiences and advancement of individuals with hearing impairments. These projects provide access to the shared cultural experiences of television to persons who are hearing impaired, particularly the elderly and persons at home during the day, who wish to enjoy daytime television. The *National Captioning Institute, Inc.*, Vienna, VA provides captioning for selected daytime programming including *All My Children*; *Another World*; and *Regis and Kathie Lee*. *America Data Captioning, Inc.*, Pittsburgh, PA provides captioning for diverse programming featuring *Ricki Lake*; *Young and Restless*; and *Days of Our Lives*. *WGBH Educational Foundation*, Boston, MA captions programs including *The Montel Williams Show*; *Your Baby and Child*; and *Popular Mechanics*.

7. National Theatre of the Deaf. (84.026E; \$750,000; 1 continuation cooperative agreement). The purpose of the *National Theater of the Deaf, Inc. (NTD)*, Chester, CT is to support a five-week professional training school for actors with hearing impairments, who in turn, conduct national tours before a wide variety of audiences, providing role models for many children with disabilities. NTD has developed a unique approach to theatrical adaptation. The sophisticated art form represented by this legitimate theater has proven that talent and skill need not be diminished by such a disability as hearing impairments, and that producers, actors, and technicians with disabilities can hold their own in the professional theater. Several actors have been awarded the highest honors for outstanding performances and contributions to the entertainment industry. This recognition has provided the public with a positive view of the talent and potential of persons with disabilities. In addition to annual national tours, NTD performs for a variety of organizations, provides theater arts instruction to school programs, conducts summer school sessions, and works with other persons with disabilities to provide them with training in theater arts.
8. Educational Video Selection and Captioning. (84.026D; \$687,000; 1 continuation cooperative agreement). The purpose of this project awarded under a cooperative agreement to the *National Association of the Deaf, Silver Spring, MD* is to operate the captioned films/video (CFV) program. The project will screen, evaluate, caption, and make available educational videos, including classics and special interest titles, for use by students and other individuals who are deaf or hard-of-hearing, parents of deaf and hard-of-hearing individuals, and other individuals directly involved in activities promoting the advancement of deaf and hard of hearing individuals in the United States. The intent is to ensure that students and other individuals with hearing impairments benefit from the same educational experiences as students and other individuals without hearing impairment. In addition to the actual captioning of products, the project will conduct an in-depth examination of the curriculum needs of deaf and hard-of-hearing children, provide advocacy for and leadership on national captioning efforts, and emphasize the involvement of consumers in determining both the content and the future direction of the CFV program.
9. Captioned Videos (\$1,415,000; 51 new contracts). Under this activity, educational films and videos are captioned for eventual distribution, free of charge, to any school or program that is registered for service and has at least one student with a hearing impairment. Classroom teachers with various subject area expertise, including those with hearing impairments, participate in reviewing educational film and video titles under the contract. The screened video titles are recommended to be captioned and distributed by the Captioned Films and Videos (CFV) program. Teachers participating in the selection process represent a variety of educational settings that include public, private, parochial schools, mainstream programs, special classes, residential and day schools. During the summer months, the study guides are developed for each new educational title by participating teachers representing all major subject areas and grade levels. General interest films and videos are distributed

Program - Funded Activities

through the CFV program free of charge to individuals who are deaf or hard of hearing or groups composed of persons with hearing impairments who are registered for services. As with educational films, the only cost to the user is return postage for 16mm films.

10. **Captioned Films and Videos Distribution System** (84.026N; \$1,286,000; 1 new cooperative agreement). The purpose of this project, awarded to the *National Association of the Deaf, Silver Spring, MD* is to operate a captioned films/video distribution system to provide deaf and hard of hearing individuals, as well as other eligible individuals with disabilities, with access to captioned educational and general interest films and videos on a nonprofit free-loan basis. The distribution system consists of local and regional centers, which may include state schools for disabled individuals, public or private school systems, public libraries, colleges or universities, and one central general interest and educational films/video center. The system will be designed to permit inter-depository circulation and will be computerized to permit individuals, depositories, and local and regional centers to access booking information via modem and generic communication software. Outreach activities will be directed to local school systems and other key sites to increase awareness of the availability of the open and closed captioned systems available under this program.
11. **Video Description Projects** (84.026Q; \$300,000; 2 new grants). The purpose of this priority is to support the description of national television programming in order to make television more accessible to persons with visual impairments. The intent is to provide access to a diversity of programming available in order to enhance shared educational, social, and cultural experiences for persons who are visually impaired. The range of programs proposed for description may include, but is not limited to, children's programs, prime time programming, emergency broadcasts, sports programs, and documentaries. *WGBH Educational Foundation, Boston, MA* provides descriptive video services for such programs as *Mr. Roger's Neighborhood*, *Masterpiece Theatre*, and *NOVA*. *Narrative Television Network, Tulsa, OK* will present *Mallock: the Andy Griffith Show*; and *The Streets of San Francisco*.
12. **Special Research, Development and Evaluation Projects** (84.026R; \$400,000; 6 continuation grants). This priority supports research projects to expand the effective uses of captioning to enhance the reading and literacy skills of individuals who are deaf or hard of hearing, to enhance the reading and literacy skills of individuals with other disabilities, to explore captioning features that make captioning a more effective tool in extending general television programming to persons with disabilities, and to expand the range of experiences available to individuals who are hearing impaired through adapted media and technology. Examples of projects are: *Gallaudet University, Research Institute, Washington, D.C.*, which is providing information to policy makers and educators about the current status of educational technology and media in schools and programs for deaf children, and will highlight and disseminate information about the most innovative and effective implementations of technology and media in the United States; and the *University of North Carolina, Greensboro, NC*, which is investigating issues pertaining to eye movement and captioning comprehension, and based on the findings, will develop guidelines for producers of captioned films.
13. **Cultural Experiences for Deaf and Hard of Hearing Individuals** (84.026T; \$1,110,000; 5 new and 4 continuation cooperative agreements). This priority supports projects that will provide cultural experiences to enrich the lives of deaf and hard of hearing individuals through the use of an integrated approach that mixes children, youth, and adults who are deaf and hard of hearing with those who can hear while conducting cultural experiences that will increase public awareness and understanding of deafness and other hearing impairments and of the artistic and intellectual achievements of deaf and hard of hearing individuals. New awards were made to the following in FY 1995: *The Deaf Arts Council, Santa Monica, CA*; *The Deaf West Theatre, Co., Inc., Los Angeles, CA*; *Minot State*

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University, Minot, ND; Cleveland Signstage Theatre, Cleveland, OH; the Onyx Theatre Company, Inc., Brooklyn NY.

14. Recorded Audio Cassettes for Visually and Print Disabled Students (84.026K; \$3,600,000; 1 new cooperative agreement). This priority supports the recording, producing, duplicating, and distributing of 15/16 ips (inch per second) four-track cassette versions of textbooks and other educational reading materials for students (elementary, secondary, postsecondary & graduate) who are visually or print disabled. The intent is that these cassette tapes will help provide equal educational opportunities to the target population of students and lessen some of the barriers they face in the classroom. The grantee is *Recording for the Blind, Inc., Princeton, NJ.*
15. Broadcast and Cable Video Description. (84.026C; \$500,000; 2 continuation cooperative agreements). This program supports the description of television programming shown on national commercial or public broadcast networks or cable networks, as well as syndicated programs, in order to make television programs more accessible to persons with visual impairments. The project at *Narrative Television Network, Tulsa, OK* is undertaking a three-year comprehensive study with Nielsen Media Research Corporation to determine the viewing habits and preferences of blind and visually impaired viewers and their families and to describe approximately 100 hours of new programs annually. The *WGBH Educational Foundation, Boston, MA* project will continue a core level of described television programs for PBS, as well as continuing a comprehensive outreach campaign to inform the target audience about the availability of described television.
16. Research on Video Description (84.026G; \$250,000; 1 continuation grant). The *American Federation of the Blind, New York, NY* is conducting research on the audience for video description and methods of distribution of video-described materials. The project is analyzing incidence, prevalence, and demographics of individuals in the United States who are blind or who have visual impairments, their viewing interests, awareness, satisfaction, and perceived effects of video description. The project will also study the techniques that vendors of video description use to reach consumers and the mechanisms they use to obtain consumer input.
17. Described Home Video. (84.026H; \$250,000; 1 continuation cooperative agreement). The purpose of this program conducted under a cooperative agreement with the *WGBH Educational Foundation, Boston MA* is to support the describing and the making available described home videos in order to enhance shared social, educational, and cultural experiences for persons who are visually impaired.
18. Program support and special activities. Funds supported the following activities: costs associated with peer reviewers who reviewed applications submitted under this program (\$19,000); Minority Outreach Projects (\$21,000; described under the Personnel Preparation Program); and the Small Business Innovative Research Program (\$480,000; described under the Technology Program).

GLOSSARY OF BASIC TERMS FOR CAPTIONING VIDEO

If you are unfamiliar with the process of captioning, this glossary can help you understand the most basic terms:

Off-line captioning: Captioning that is produced after a video segment has been recorded. A captioner watches the video recording and creates captions, paying attention to the timing and screen placement of each caption. The captions are usually then recorded on a videotape with the program picture and sound before the program is broadcast or distributed. Most captioned programming is produced off-line.

Real-time captioning: Captions which are simultaneously created and transmitted during a video program or conference. This type of captioning is most frequently used for live programs, including news shows and sporting events. A trained stenotypist, acting in much the same way as a courtroom reporter, enters the spoken content by typing phonetic codes on a special keyboard that permits high-speed transcription. A computer, using custom software, then very quickly translates the phonetic codes into proper text. In order to display the words as quickly as possible after they are spoken, most real-time captioning is shown in a scrolling style.


Closed captions: Captions that appear only when special equipment called a decoder is used. Closed captioning is typically used for broadcast television and for videocassettes of movies which are widely distributed. Closed captioning allows caption users (people who are deaf and hard of hearing) to enjoy the same broadcast and pre-recorded video materials that other television viewers enjoy.

Open captions: Captions that are visible without using a decoder. When a video is open captioned, the captions are permanently part of the picture. Open captions are advised for any situation where a decoder may be difficult to obtain or operate (for example, in a hotel, convention center, or museum). For this reason, open captioning is recommended for training and promotional videos.

Closed caption decoder: Equipment that decodes the captioning signal and causes captions to appear on the screen. In the 1980s and early 1990s, closed caption decoders have usually been separate appliances that connected to the television set, VCR, and/or cable converter box. After July 1, 1993, all television receivers with screens 13" or larger manufactured for sale in the United States must have built-in closed caption decoders, and the additional appliance will not be needed for these sets.

Roll-up and Pop-on captions: These are the two main styles in which captions may appear. Roll-up captions scroll onto and off the screen in a continuous motion. Pop-on captions do not scroll; the words display and erase entirely together. Pop-on captions are used for most off-line captioning. Roll-up captions are used for most real-time captioning.

Editor's Note:

An important step to remember is labeling all captioned video materials and indicating whether the captioning is open or closed. Two familiar symbols for captioning are commonly used to indicate closed captioning. CC, by itself or in a rectangle, is a generic symbol which may be used by anyone, regardless of which company, agency, or person produced the captions. , however, is the registered service mark of the National Captioning Institute and may only be used by permission of that company when they produce the captions.



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News Release

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WRC-TV INTRODUCES ACTIVE CLOSED CAPTIONING OF "NEWS4 AT 6" AND "NEWS4 AT 11"

Deaf and Hard of Hearing Community* Responds with Overwhelming Enthusiasm

DECEMBER 16, 1992, WASHINGTON, D.C.....WRC-TV is proud to announce an exciting new venture which directly addresses the needs of more than 300,000 deaf and hard of hearing people in the Washington area. The announcement was made today by Allan Horlick, President and General Manager of WRC-TV.

This service provides "active," real-time closed captioning, a technology that brings the deaf and hard of hearing viewer virtually instant, word-for-word transcription. WRC-TV is currently the only station to offer this service for the deaf and hard of hearing community.

"We're ecstatic about this new service," said Horlick. "The deaf and hard of hearing community in our area is not only a large group, it is a very active, educated and sophisticated group. They have been organized and vocal about their need for such a service, and have responded to our effort with overwhelming enthusiasm. We look forward to a long and successful relationship with this dynamic community," added Horlick.

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Instrumental to the success of WRC-TV's effort is Caption Colorado, an organization in Denver, Colorado, headed by Bill Senske. The system used is similar to that used in court reporting, and the method of transmission to WRC-TV is by phone line versus the more expensive satellite service.

One of the most impressive features of the service includes not only prepared script, but actual "banter" between reporters during news segments throughout the entire hour of news. This is accomplished by highly trained stenographers who transcribe in excess of 200 words per minute.

In addition, stenographers are transcribing by audio only, without benefit of video.

"We're excited about WRC-TV's willingness to take a new approach to captioning so that more deaf and hard of hearing people can have the benefit of closed captioning," said Senske. "Moreover, we're delighted that Caption Colorado is able to provide that service," added Senske.

To ensure the success of the effort, prior to initiating testing, WRC-TV management, news and technical staff actively sought out comment and expertise from representatives of the deaf and hard of hearing community.